REVIEW ARTICLE
Nocebo: Three cases
*Memon G R, **Ali M A I

Abstract:
Nocebo effect is due to negative expectations of the treatment. It is belief which strongly influences the outcome of disease. Three cases presented here, have an irrational response to scientific medical procedures due to lack of trust. Agnosis leads to faith in superstitions.

Introduction:
Nocebo is a Latin term by mean “I shall harm”. This term was first used by Walter Kennedy in 1961 as counterpart of placebo. Placebo is also Latin term by mean “I Shall please”. Nocebo is phenomenon of perception, if the expectations are negative than they influence the results expected. The thought, faith, belief and expectation can influence the outcome of treatment and surgery. Nocebo effect is when thoughts are negative about outcome. On contrary positive thoughts results in positive effects, even if an inert drug is used. Placebo and nocebo both have not only psychological effect, but they also produce physiological changes in brain, body and behaviour.

In 2012 Hauser W, et al reviewed 31 studies on nocebo effects, the outcome was manifestations of symptoms include nausea, gastric pain, itching, bloating, depression, insomnia, loss of appetite, sexual dysfunction and severe hypotension. Nocebo is not an iatrogenic response of drugs. Iatrogenesis is induced by words or actions of the physician or by medical treatment or diagnostic procedure. In nocebo response verbal suggestions can cause

Case study one: Propaganda and Rhetoricism:
A female patient aged 45 years came for FNAC of left breast mass. FNAC performed and reported as malignant cells suggestive of invasive ductal carcinoma. After one-month same patient came back and request to repeat the FNAC. Patient enquired if she had been reported as malignant cells one month before, then what is the reason to repeat the FNAC? Answer was that she is under treatment of “Hakeem” at the village, who is cancer specialist and treated many patients which were suffering from carcinoma. Now he wanted to see prognosis on FNAC reports.

Case study two: Mistrust and superstitions:
A male patient aged 42 years, referred for FNAC of right cervical lymphadenopathy. On examination there were multiple enlarged lymph nodes, hard in consistency. On FNAC and CBC lymphoma cells were identified. Lymph node biopsy was suggested to confirm the diagnosis. Patient did not collect the report. He called on cell phone and informed that he is suffering from serious disease but not responded. One month later his relative came to collect the report. On enquiring her replied that “Though what the report is suggesting but patient is well, he was under the curse of shadow. Now he is well by the practices of witchcraft.

Discussion:
Culture bound syndromes are described in literature, in which the culture provides an etiology, diagnosis, preventive measures and healing. Faith and traditions have retrograde influences. They occupy and has accommodate each other. Even the same religion has got different practices of performances. Ironically the literacy by definition itself is illiterate at the level of various standards of knowledge. Although some observers attribute nocebo response to subject’s gullibility but instead of that in real sense it is credible response of the subject. He is gullible to tricks of society but credible to faith. Where there is faith, there is no discussion, only way is to surrender, and surrender gives a relief. In all three cases nocebo is mistrusted response. Though there is physiological deterioration but psychological amelioration. The
classes of people especially children, elderly and developmentally disable are more vulnerable to exploitation due to gullibility. As in case study one a patient suffering from carcinoma is exploited by “Hakeem”, who is famous for treating malignant diseases. In low socio- economical societies there is failure of the social intelligence, in which a person is easily tricked or manipulated into an ill-advised course of action. The walls of towns and villages are full of such an advertisement that a common people are attracted and exploited. In case study two, lymphadenopathy has its own anthropological history. It remains mysterious, had been considered as curse which bring the harm. In middle ages, it was believed that Royal touch, the touch of sovereign of England or France could cure disease due to the divine right sovereigns, therefore it was known as kings evil. Lymphadenopathy has a history of superstitions. Superstitious practices are still there in helpless fearful societies. It is due to misunderstanding of science or irrational belief in fate or magic. Superstitions in Didero’s encyclopedia are define as any excess of religion in general and links it specially with paganism. The term paganism is first used in the fourth century for the population of Roman empire who practiced polytheism. In case study three, nocebo is outcome of mistrust and nonacceptance of scientific medical procedures. The religion may be innovated and modified to accommodate the aberrance. Religious superstitions is bid’ah. Bid’ah means innovations in religion i.e. new methods of worship, festivals, beliefs etc.

Conclusion: Nocebo is paradoxical to placebo. Prevalence of sense of helplessness in society opens gates of misdirection. At the point of acceptance, faith is bipolar. It is both healer or killer. Under the influence of belief, the efficacy of scientific medical procedures become double, otherwise wane even not a single. In ignorant societies, there are irrational superstitious practices. Nocebo response is when thoughts are negative about outcome of scientific medical procedures.

References:
1. Merriam.webster online Dictionary – Charlton T. Lewis and on Perseus project.

Authors:
*Ghulam Rasool Memon
MBBS – M.PHIL. ( Pathology )
Assistant Prof: Department of Pathology Muhammad Medical College Mirpurkhas.

**Major Amir Iqbal Ali
MBBS – FCPS
General Surgeon combined Military Hospital Chhor Cantt.
District: Umerkot.